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III. *A Determination of Three British Species of Juncus, with jointed Leaves. By the Rev. Hugh Davies, F.L.S.*

*Read November 1, 1808.*

IN the course of a morning's walk having been fortunate in an opportunity of examining the knotty-leaved division of the genus *JUNCUS*, by finding all the species on nearly the same spot, I am induced to request leave to lay before the Linnean Society the result of my observations.

Here then I must premise, that the want of an opportunity of examining them in a proper state, and comparing them together, I take to have been the cause that what seem to me to be distinct species have been treated as varieties only, by men of eminence in the science of botany.

In consequence of the attention which I bestowed on them, I am much inclined to suppose that I can determine into *three* very distinct species, what have been deemed *two* varieties only of the species *J. articulatus*, *Lim. Sp. Pl.*, *Sm. Fl. Brit.*, and *Leers Fl. Herborn.*; but are considered as two species, indeed, by Dr. Sibthorp, viz. *compressus* and *nemorosus*; and two species, likewise, by Mr. Relhan, viz. *compressus* and *articulatus*.

My *three* species I shall at present distinguish as FIRST, SECOND, and THIRD.

In the FIRST the branches of the panicle are strong, erect, fewer, and less diffuse than in the other two; the capsule is large, of a deep reddish brown colour, and finely glossed; of  
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an oval triangular shape, terminated by a short blunt point; the stalk of 4—6 joints.

This is *JUNCUS articulatus*, *Fl. Brit.*, *Fl. Herborn.*; and *compressus* of Sibthorp and Relhan. *Moris. s. 8. t. 9. f. 2.* *Scheuchz. 331. 1.* *R. Syn. 433. 8.* but I cannot refer to the *Sp. Pl.*, where the definition is *petalis obtusis*.

In the SECOND the panicle is more branched, the branches more slender, and spreading, the divisions of the calyx narrower and longer, the capsule smaller, much more taper-pointed, and lighter-coloured; culm of fewer joints, that, and the leaves, less compressed. It is a taller plant, sometimes above three feet high, and it ripens later.

This I take to be *Moris. s. 8. t. 9. f. 1.* certainly *Scheuchzer, p. 334. 4.* who says: “*Calami tribus quatuorve communiter geniculis distincti,—Flosculi nunc dilutiùs nunc obscuriùs fusci aut spadicei,—Vasculum seminale triquetrum, in acutum mucronem terminatum.*” It is likewise *J. articulatus* of Relhan; and *nemorosus* of Sibthorp.

My THIRD differs from both the former in several particulars:—The panicle is much lighter-coloured; the peduncles, which are divaricated, and even bent back, are evidently thicker than those of the SECOND, the panicle of which resembles this more than that of the FIRST. Then the *smallest* capsule of this;—the pale-coloured bunches of florets,—and particularly the elliptic obtuse segments of the calyx, with a broad scariose margin, fully distinguish it from the other two. It is, besides, a firmer plant, the nodes in the leaves being scarcely perceptible without a considerable degree of pressure;—the culm and leaf are quite round, and it never has more than two joints in the stalk!

I find no description of this species besides the short one in *Fl. Brit. articulati var. β.* “*culmo erectiore, panicula ramosiori,*

floribus minoribus, pallidioribus et obtusioribus." At the same time I cannot admit it to be these following, which are there referred to, viz. *Moris. s. 8. t. 9. f. 1.* nor Relhan's *articulatus*, who gives his from Leers, *petala acutissima*. Nor is it *R. Syn.* 433. No. 9. *entirely*;—it is *Doody's* plant there mentioned, which he tells us he found in *Peckham-field*, "*cum glumis albis*." It may, by the definition, be Haller's plant, No. 1323, "*foliis teretibus articulatis, panicula repetito-ramosa*;" but his description evidently comprehends the SECOND as well as this. Withering's 5th var. of *articulatus*, p. 347. "*husks white*," seems to be this plant.

These references prove that this species has not hitherto escaped notice; but I wonder that the character, from whence I was inclined to take its trivial name, has not been noted by any writer I have seen!

As I wished to avoid the confusion which naturally arises from repeatedly changing names, my design was to have named the three species;—the FIRST, *compressus*; the SECOND, *nemorosus*—both after Dr. Sibthorp; and my THIRD, *divaricatus*—a trivial appellation which I think particularly suitable to it.

I communicated this my idea, of three species, to my respected friend Dr. Smith, who gave it as his opinion that they ought to be separated, and that the same thought had occurred to Ehrhart, who has made three species of them, under the following names:—*lampocarpus*, (my FIRST); *acutiflorus*, (my SECOND); *obtusiflorus*, (my THIRD); which accord exactly with my notion.

These names I now adopt; and, as I have not seen Ehrhart's definitions, I define them as follows.

JUNCUS,

## JUNCUS, &amp;c.

\* \* *Culmis foliosis.*† *Foliis nodoso-articulatis.*

*lampocarpus*. J. foliis compressis, paniculâ terminali compositâ  
*Ehrh. Calam.* erectâ, calycis foliolis tribus exterioribus ovato-  
 No. 126. lanceolatis, acuminatis; interioribus, scarioso-  
 marginatis obtusiusculis, capsulâ ovatâ triquetrâ  
 stylo brevi terminatâ fusco-purpureâ nitidâ, cul-  
 mo 3—6-folio.

*acutiflorus*. J. foliis compressiusculis, paniculâ terminali su-  
*Ehrh. Calam.* pradecompositâ diffusâ, calycis foliolis omnibus  
 No. 66. lanceolatis acuminatis, capsulâ ovato-oblongâ  
 triquetrâ mucronatâ, culmo 3—4-folio.

*obtusiflorus*. J. foliis terretibus, paniculâ terminali suprade-  
*Ehrh. Calam.* compositâ, pedunculis divaricato-refractis! caly-  
 No. 76. cis foliolis ellipticis obtusis, capsulâ ovato-acu-  
 minatâ triquetrâ, culmo bifolio!

The capsules of *lampocarpus* are by much the largest; those of *acutiflorus* are evidently larger, and more elongated, than those of *obtusiflorus*; (i. c.) the largest and strongest plant bears the smallest capsule.

The branches of the panicle in *lampocarpus* are sometimes but once divided, but frequently twice, and even thrice, as well as in the two other species.

When *lampocarpus* happens, from some accidental cause, to flower late in the season, so as not to perfect its large and polished capsules, it may be distinguished by a disposition to be-  
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come viviparous, and branching at the joints,—a property which I never observed in either of the other two species.

Another character whereby *obtusiflorus* may be known, even at a distance, is, that where it is found in any plenty, a number of the panicles are frequently seen entangled together, so as not easily to be disengaged; this proceeds from the extreme divarication of the branches of the panicle.